UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,629	01/23/2006	Fred Runge	20811/0204480-US0	2308

7278 7590 07/21/2009

DARBY & DARBY P.C.
P.O. BOX 770
Church Street Station
New York, NY 10008-0770

EXAMINER	
HUYNH, NAM TRUNG	
ART UNIT	**PAPER NUMBER**
2617	

MAIL DATE	DELIVERY MODE
07/21/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,629	RUNGE ET AL.	
	Examiner	Art Unit	
	NAM HUYNH	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *50-90* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *50-90* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 4/6/09. Of the previously presented claims 50-88; claims 50, 53, 54, 60, 64, 68, 72, and 82 have been amended and claims 89 and 90 have been added.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 50-75, 77-79, and 82-87 are rejected under 35 U.S.C. 102(a) as being anticipated by Kato (US 6,522,725).

Regarding claims 50 and 72, Kato teaches a method for carrying out a hands-free communication using a telecommunication terminal, the method comprising:

loading, at least temporarily, at least one program (speech recognition program) from a service server (switching center/host system) into the telecommunication terminal, the at least one program being configured to implement a speech processing algorithm (column 3, lines 33-57; speech recognition program is downloaded to the telephone terminal); and

implementing the at least one program for use at least for a duration of a communication connection (column 4, lines 1-15; the speech recognition program is used while the user is connected to the telephone network) to process a speech signal; and

transmitting the processed speech signal over at least one communication network (column 2, lines 35-50; Kato teaches as prior art that a speech signal is transmitted from the telephone terminal via the telephone network to the speech recognition section of the switching system).

Regarding claims 51 and 73, Kato teaches the telecommunication terminal is a mobile telecommunication terminal (column 2, lines 21-23, 33-37).

Regarding claims 52, 74, and 83, Kato teaches the speech processing algorithm includes at least one of a hands-free, an echo cancellation, a speaker verification, a speaker recognition, a speaker classification, a voice verification, a voice recognition, a text-to- speech and a noise reduction algorithm (column 3, lines 40-41).

Regarding claims 53 and 75, Kato teaches establishing, over the at least one communication network, a connection between the telecommunication terminal and a server-based speech recognition system (column 3, lines 33-57).

Regarding claim 54, Kato teaches establishing a connection to the service server over the at least one communication network so as to facilitate the loading (column 3, lines 33-57.

Regarding claim 55, Kato teaches the connection is established via an interposed server-based speech recognition system (column 3, lines 33-37).

Regarding claim 56, Kato teaches the connection is established between the service server and the telecommunication terminal in response to an automatic or user-defined request (user call) signal by the telecommunication terminal (column 3, lines 33-57).

Regarding claim 57, Kato teaches the connection is established between the service server and the telecommunication terminal in response to a request signal of a server-based speech recognition system (column 3, lines 33-37).

Regarding claims 58 and 77, Kato teaches the establishing the connection is performed using respectively assigned identifiers (column 3, lines 58-65; kind of telephone terminal).

Regarding claim 59, Kato teaches the respectively assigned identifiers include at least one of a CLI, an ANI and an HLR (column 3, lines 58-65).

Regarding claim 60, Kato teaches transmitting further signals (recognition result) during the communication connection (column 4, lines 1-8).

Regarding claims 61 and 85, Kato teaches the further signals include at least one of test signals, compensation signals, charging signals, identification parameters, and vector signals (column 4, lines 23-36).

Regarding claim 62, Kato teaches selecting the speech processing algorithm using at least one of the telecommunication terminal, a speech recognition system, and the service server (column 3, lines 58-65).

Regarding claim 63, Kato teaches loading the at least one program again during the communication connection (column 4, lines 11-15).

Regarding claim 65, Kato teaches transmitting, by the telecommunication terminal, at least one of a specific identification parameter and a charging parameter for further processing by a device associated with at least one of a speech recognition system and the service server (column 3, lines 58-65).

Regarding claims 66 and 84, Kato teaches calibrating, by the telecommunication terminal, at least one of an A/D conversion and a D/A conversion (column 2, lines 32-37).

Regarding claim 67, Kato teaches the calibrating is performed at least one of once during the communication connection, continuously, and digitally (column 4, lines 15-22).

Regarding claim 68, Kato teaches the calibrating is performed using a compensation signal, the compensation signal being at least the speech signal and a test signal (column 4, lines 23-36).

Regarding claim 69, Kato teaches performing a procedure for locating a speech source (column 4, lines 23-36).

Regarding claim 70, Kato teaches performing the procedure for locating the speech source is performed for a multi-channel processing of at least two microphone signals (column 3, lines 58-65; column 4, lines 23-36; speech signal can be evaluated based on many characteristics).

Regarding claim 71, Kato teaches the performing the procedure for locating the speech source is performed so as to achieve a noise reduction (column 4, lines 23-36).

Regarding claim 78, Kato teaches a server-based speech recognition system configured to enable the at least one program to be selected and at least temporarily loaded and implemented on the at least one telecommunication terminal in response to identification parameters associated with the at least one telecommunication terminal (column 3, lines 58-65).

Regarding claim 79, Kato teaches the service server is configured to enable the at least one program to be selected and at least temporarily loaded and implemented on the at least one telecommunication terminal in response to identification parameters associated with the at least one telecommunication terminal (column 3, lines 58-65).

Regarding claim 82, Kato teaches a telecommunication terminal comprising:

a receiver configured to receive at least one program for implementing a speech processing algorithm transmitted, in response to a defined request signal, from a service server for at least temporary implementation of the at least one program (column 3, lines 58-65); and

a processor unit configured to implement the speech processing algorithm to process a speech signal; and

a transmitter configured to transmit the processed speech signal over at least one communication network (column 2, lines 35-50; Kato teaches as prior art that a speech signal is transmitted from the telephone terminal via the telephone network to the speech recognition section of the switching system).

Regarding claim 86, Kato teaches the telecommunication terminal as recited in comprises an encoder unit (figure 4, items 305, 301).

Regarding claim 87, Kato teaches the telecommunication terminal comprises a conversion device configured to convert a speech signal between different frequency bands (figure 4, items 301, 302).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 6,522,725) in view of Ainslie et al. (US 6,480,599) (hereinafter Ainslie).

Kato teaches loading, at least temporarily, the updated at least one program into the telecommunication terminal (column 3, lines 33-57; speech recognition program is downloaded to the telephone terminal) during the communication connection (column 4, lines 1-15; the speech recognition program is used while the user is connected to the telephone network), but does not explicitly teach that the program is updated. Ainslie

discloses a telecommunications system and method for automatic call recognition and distribution (title). Ainslie teaches that automatic speech recognition programs and/or interactive voice response programs are updated remotely and adjusted by a customer service computer (column 4, lines 25-35). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Kato to allow the speech recognition program to be updated, as taught by Ainslie, in order to improve reliability or performance of the program through updates that improve or fix existing problems.

6. Claims 76, 80, 81, and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 6,522,725) in view of Anastasakos et al. (US 2004/0192384) (hereinafter Anastasakos).

Regarding claim 76, Kato teaches the limitations set forth in claim 72, but does not explicitly teach that the service server is provided by a WEB server, and further comprising at least one of a server-based speech recognition system, a charging and a billing system provided by the WEB server. Anastasakos discloses a method and apparatus for selective distributed speech recognition. Anastasakos teaches a WEB server, and further comprising at least one of a server-based speech recognition system, a charging and a billing system provided by the WEB server (figure 3, items 162, 108, 172, 110; paragraphs 21, 33, 35). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Kato to include web capability and billing, as taught by Anastasakos, in order to

further enhance the communication capability of the server and allow the network to charge based on certain parameters or specific price preferences.

Regarding claims 80 and 81, Anastasakos teaches a server-based speech recognition system and at least one of a charging system and a billing system configured to charge, in response to at least one of an identification and a charging parameter associated with the at least one telecommunication terminal, for a service at least temporarily provided by a server-based speech recognition system to the at least one telecommunication terminal (figure 3, items 162, 108, 172, 110; paragraphs 21, 33, 35).

Regarding claim 90, Kato teaches the limitations in claim 62, but does not explicitly teach the speech processing algorithm is selected in response to a current environment associated with the telecommunication terminal. Anastasakos teaches that a network speech recognition engine is chosen based on environment information for which the wireless device is in (paragraph 20). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Kato, to take into account environment information when using the speech recognition program, as taught by Anastasakos, in order to increase the probability of correctly recognizing speech terms based on an expected noise factor.

7. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 6,522,725) in view of Zhang et al. (US 2004/0058647) (hereinafter Zhang).

Kato teaches the limitations set forth in claim 82, but does not explicitly teach that the communication terminal further comprises an interface device configured for at least one of wired and wireless connection of at least one of an external microphone and a loudspeaker. Zhang discloses an apparatus and method for providing hands-free operation of a device. Zhang teaches an interface device configured for at least one of wired and wireless connection of at least one of an external microphone (headset microphone) and a loudspeaker (figures 2, 3, 5). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the terminal of Kato to include integration of a headset so that a user would not have to hold the telephone while a conversation or submitting a voice command.

8. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 6,522,725) in view of Cook (US 7,099,825).

Kato teaches the limitations set forth in claim 62, but does not explicitly teach the speech processing algorithm is selected in response to identification parameters associated with the telecommunication terminal. Cook discloses user mobility in a voice recognition environment (title). Cook teaches that a device communicates voice recognition data along with a user ID and its own device ID (identification parameters) (column 8, lines 20-27). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Kato, to include the capability to transfer identification parameters, as taught by Cook, in order to properly

identify the subscriber and device for authentication purposes or customization for both the subscriber and device.

Response to Arguments

9. Applicant's arguments filed 4/6/09 have been fully considered but they are not persuasive.

Regarding claims 50, 72, and 82, Applicant asserts that Kato does not teach or suggest the limitation recited "...the at least one program... to process a speech signal and transmitting the processed speech signal over at least one communication network." The Examiner respectfully disagrees and asserts that Kato teaches this limitation as prior art. Kato teaches that a speech signal is transmitted from the telephone terminal via the telephone network to the speech recognition section of the switching system (column 2, lines 35-50). Accordingly the claims remain rejected as being anticipated by Kato.

10. Applicant's argument with respect to claim 64 has been considered but is moot in view of the new ground(s) of rejection.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617